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Procedures and machinery were developed for a statewide, 5-year follow-up of high school and post-secondary vocational students for quality and cost effectiveness analysis purposes. The system calls for specific information about the student to be gathered while he is in school by means of a Student Exit Form. Information is accumulated on magnetic computer tape, and after the student leaves school (graduates or drops out), he is sent a mail-out questionnaire designed to gather information about what the student does after leaving school. Students receive a questionnaire once each year for 5 years after leaving school. Exit forms were utilized for the first time during the 1967-68 school year and mail-out questionnaires were sent to 1968 graduates and to dropouts in September 1968. Although problems arose in procedures, data accumulation, and reports, the basic system has been developed, is considered functional, and is recommended for continuation. (Not available in hard copy due to marginal legibility of original document.) (CH)

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INTERIM REPORT

Project No. 6-3046
Grant No. OEG-4-7-063046-1612

UTAH PROJECT "FOLLOW-UP"

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Project Director: John F. Stephens

Research Coordinating Unit
For Vocational and Technical Education
Utah State Board of Education
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SUMMARY

Statement of the Problem

Previous examinations of the effectiveness of Utah's public vocational training revealed the need for accurate follow-up information on former vocational students. This data was needed for both secondary and post secondary vocational students. The problem was to develop the procedures and machinery for a statewide, five-year follow-up of high school and post high school vocational students.

Objectives

The objectives of the study were:

1. To accumulate course enrollment and completion information for vocational education students in Utah.

2. To measure the progress of the vocational student in the world of work.

3. To solicit comments from the former student concerning the quality of his vocational training.

4. To provide the district, the school, and the instructor information about former students which may be used to evaluate their counseling and teaching effectiveness, and the value of courses taught.

5. To provide information for cost-effectiveness analysis of vocational programs.

6. To replace the forms previously required from each district and needed by the State to complete the Federal Follow-up Report due in Washington, D. C. on December 1 of each year.

Method: 100% of all vocational students in Utah are included in the Follow-up program. Basic information about the student is gathered while he is in school by means of a Student Exit Form. The information is accumulated on magnetic computer tape and after the student leaves school (graduates or drops out) he is sent a Mailout Questionnaire. This form is designed to gather information about what the student does after leaving school; he will receive the questionnaire once each year for 5 years after leaving school.

Results and Recommendations: Exit Forms were utilized for the first time during the 1967-68 school year and Mailout Questionnaires were sent to 1968 graduates and dropouts in September 1968. Although problems arose in procedures, data accumulation and reports, the basic system which has been developed is considered functional and is recommended for continuation.

I. INTRODUCTION

Introductory Statement

In July 1967 a publication entitled Cost Effectivenss Study of Utah Vocational Programs was produced by the Utah Research Coordinating Unit for Vocational and Technical Education. The results of this publication brought to light the need of a follow-up of those students who have completed vocational education programs. The introductory paragraph graphically states the need of evaluating the vocational programs.

"A means is needed for measuring the effectiveness of our vocational education programs as a function of the dollars invested in these programs. This measure is needed as one basis for determining which programs need improvement or reorientation, and which programs need increasing."

The study made some important recommendations. A recommendation was made to expand the former follow-on report to provide information about high school graduates who enter non-baccalaureate, vocational and technical post-secondary courses. At the same time it would be salient to have information available on those students who go directly to work after high school graduation.

Another recommendation was made to adapt the follow-on report to the computer so..."that plans / could / be made to gather information on each high school vocational graduate each year for at least five years to permit a better estimate of the cost-effectiveness of the vocational programs."

A. Problem Statement

A thorough study of the effectivenss of Utah's vocational education training courses had never been made on a statewide basis and has seldom been made on a district basis. Those previous follow-up programs which were done on an individual district basis were often incomplete, sporadic or ambiguous. Most district staffs were not adequately equipped with the personnel, time nor money to do a thorough follow-up study. Yet, each district desires and needs the data which could be provided by a follow-up study.

The problem was to develop the procedures and machinery for a statewide, five year follow-up of high school and post-secondary vocational students.

B. Objectives of the Study

The objectives of the follow-up study of vocational students are:

1. To accumulate course enrollment and completion information for vocational education students in Utah.

2. To measure the progress of the vocational student in the world of work.

3. To solicit comments from the former student concerning the quality of his vocational training.

4. To provide the district, the school and the instructor information about former students which they may use to measure their counseling and teaching effectiveness, and the value of courses taught.

5. To provide information for cost-effectiveness analysis of vocational programs.

6. To replace the forms previously required from each district and needed by the State to complete the Federal Follow-up Report (Form OE4045) due in Washington, D. C. on December 1 of each year.

C. Delimitations of the Study

1. This study is limited to high school and post-secondary students who have begun a vocational course regardless of whether or not they complete a vocational program.

2. Utah is somewhat different from other states regarding high school graduates. At 19 years of age many young men serve an LDS Church (Mormon) mission for two or two and a half years. In such cases, entry into the labor market is delayed, and evaluation of occupational development and success within a five year period therefore may be difficult.

3. Students who had completed a vocational class or program before the Follow-up project was begun were excluded. For example, a senior student who completed two years of vocational agriculture in his sophomore and nunior years and took no agriculture courses the first year of collection (1967-68) was not initially included in the study.

D. Review of Literature

Beginning in 1966, the State of Washington, under the direction of Patrick J. Mailey, Project Researcher, initiated a follow-up system for vocational-preparatory students. This system would effectively follow the student after leaving school. The main purpose of the Washington study was to determine if the former student was employed in the occupation for which he was trained. Using the basic Washington follow-up framework, the State of Utah is modifying that system to meet local needs.

E. Definition of Terms

1. COMPLETED PROGRAM: A vocational class or series of classes which are conducted under the standards of the State Vocational Education Plan and completed by the student. The criteria for secondary level program completion are given in Appendix I.

2. FOLLOW-UP: A project whereby a former student is asked to complete a series of questionnaires to evaluate his or her educational background and success in the occupation for which trained; the former student is not "lost" to the educators, but keeps in contact with the directors of "Follow-Up" via the questionnaires sent each year.

3. FOLLOW-UP INSTRUCTION AND CODE BOOK: The book which is distributed to all vocational teachers and provides the instructions for completing the "Student Exit Form."

4. POST-SECONDARY VOCATIONAL PROGRAM: Any program of sub-baccalaureate level preparation in a specific occupational field offered at a publicly supported technical school, junior college, four-year college or university in the state.

5. STUDENT EXIT FORM: A questionnaire which is to be filled out by the student at the time he leaves or completes a vocational class.

6. STUDENT MAIL-OUT QUESTIONNAIRE: The instrument which will be sent to the former vocational student who has graduated from or dropped out of school.

7. VOCATIONAL CLASS: A class teaching a program of occupational preparation according to standards established in the State Plan of the Division of Vocational Education in any of the following fields: Agriculture, distributive education, health occupations, home economics, office occupations, technical occupations, and trades and industrial occupations.

II. METHOD

A. Preliminary Preparation

In order to conduct a project of this magnitude, it was necessary to have the approval and support of local personnel. On November 24, 1967 a letter was sent to Superintendents of all school districts in Utah. The letter explained the purpose of the program and asked for their approval. (See Appendix A). A total of 40 letters were mailed. Along with the letter were enclosed preliminary forms of the Students Exit Form and the Mailout Questionnaire. Fifty percent of those contacted responded with a letter of approval. The twenty who did not respond

by mail were personally contacted by telephone and asked for their support of the project. With the exception of one school district, all were immediately in favor and heartily supported the idea of a follow-up project. It was necessary for Mr. John F. Stephens, Director of the Research Coordinating Unit, to meet with the Superintendent, District Vocational Director, and all district high school principals of the dissenting district to solicit their support and cooperation. As a result of these meetings, they too supported the "Follow-Up project.

On December 5, 1967, a similar letter was sent to all post-secondary administrators and vocational personnel. (See Appendix B.) Again, we solicited their approval and support. The response was very favorable and 100% approval was obtained.

On December 15, 1967, a letter explaining the "Follow-Up project was sent to all Utah high school principals and district vocational directors. (See Appendix C.) The letter outlined their responsibility in the "Follow-Up" project.

B. Population of the Study

The population of this study includes 100% of the high school students in Utah who enroll in a vocational class, as well as all post-secondary vocational-technical students. Inclusion of all students who enroll in vocational classes and programs permits a comparison of those students who complete a program with those who leave the program before completion. A 100% follow-up was chosen instead of a sampling method because a major objective of the program was to supply information about its own students to each high school (and post-secondary school) in the state. Many of Utah's high schools are extremely small in size and their vocational student populations were considered too small to survey on a sampling basis.

C. Student Exit Form (See Appendix D)

The Student Exit Form is to be completed by each high school or post-secondary school student who exits for any reason from a vocational education class, regardless of whether the course has been completed. The data obtained from this form include: Name, address, social security number, an alternate address, district and school codes, course name and code, exit date, current status of the student (dropping out, remaining in school, etc.), birthdate, and whether the student completed the course.[1] The form is designed for ease and speed of completion.

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[1]The teacher's name and social security number were also requested on the form illustrated in Appendix D; it was later decided that this information was not necessary.

D. Enter Information on Tape

After the Exit Forms are accumulated, the information is keypunched and then entered on magnetic computer tape where each student is identified by a social security number. A separate record is established for each student within occupational fields. For example, if student A has taken two agriculture courses and two courses in office occupations, a record for that student would be set up in the agriculture area and in the office occupations area. The record in each area is cumulative: the student described above would be listed as having taken two courses in each field, rather than being listed once for each course. In addition, if this student took an additional agriculture course the following year, a new record would not be established, but his total courses in agriculture would simply be increased to three.

It was deemed desirable to develop a method of identifying special groups of students on whom Follow-up information might be requested, without the necessity of knowing the social security numbers of such persons. For example, the evaluation of several innovative programs involves following the progress of students enrolled in them. To simplify the processing of this information, a special coding system was established. A three-digit code is assigned to each special group and entered on the records maintained for students in these groups. Whenever it is desired to retrieve information on one of these groups, this can be accomplished by sorting out all records with the particular special code assigned to that group.

E. Newsletters

Communication was maintained between the state-level direction of Project Follow-up and local school personnel who were responsible for supplying the basic data by means of newsletters which were written and mailed as needed.

F. Mailout Questionnaire (See Appendix E)

During September of each year for five consecutive years after he graduates or otherwise leaves school, the vocational student is sent a mail out questionnaire. The questionnaire is pre-printed on a standard keypunch card and sent to the student in a "window" envelope. The card format is designed so the name and address, printed by the computer, will show through the window of the envelope. A pre-stamped, pre-addressed envelope is enclosed for the respondent to use. After 10 days, a reminder letter is sent to all non-respondents. After another 10 days, the non-respondents receive another questionnaire; in cases where the first questionnaire was returned because of incorrect address, the second questionnaire is sent to the alternate address supplied on the Student Exit Form. All identification of non-respondents and addressing of reminder notices and second questionnaires is done on the computer so that clerical work is minimized. The keypunch card was selected for the

mailout questionnaire because identifying information could be key-punched into the card to enable computer-recording of non-respondents as described above, as well as rapid sorting of the cards.

G. Non-Response on Mailout Questionnaire

Those former students who do not respond to the mailout questionnaire after the three efforts outlined in the previous section are removed from the master tape. The intention is that students who have been dropped due to non-response the first year will not be contacted in the following year's mailout questionnaire survey, on the premise that response from this group would be minimal. However, consideration is being given to including a sample of this group in the Follow-up survey during the second year in order to determine if the premise is correct.

H. Reports Supplied

Data for the Federal Follow-up Report (Form OE 4045) is compiled from returns on the Mailout Questionnaire. In addition, analyses are prepared for individual schools and districts in the state. The information supplied in these local reports is shown in Appendix F.

These reports are assembled by the computer, based on the data collected from the Exit Forms and Mailout Questionnaires.

I. Special Non-vocational Follow-up

One fact which became increasingly obvious as Project Follow-up developed was that there was little information available on non-vocational students against which to compare the data accumulated on vocational students. It was decided, therefore, that a special follow-up study would be undertaken which would include all non-vocational students in the 1968 graduating class in four high schools in the state, East (Salt Lake District), Payson (Nebo District), Richfield (Sevier District), and Parowan (Iron District).

These students will be sent a Follow-up survey questionnaire every year for five years following graduation. The sequence and procedures followed are the same as those for the regular vocational follow-up. A new questionnaire was developed for this group (see Appendix G) because the main questionnaire had been specifically designed for vocational students.

J. Cost Effectiveness Analysis

One of the objectives of Project Follow-up as previously enumerated was to provide data for cost-effectiveness analysis of vocational-technical programs. A previous cost-effectiveness study referred to in the introductory section of this report pointed to the need for accurate follow-up information on vocational students in order to determine the effectiveness of vocational programs as a function of the dollars invested in them.

"Effectiveness" is defined in the present report in terms of "successful" former students, who in turn may be enumerated as those who:

1. enter full time employment in the field for which they were trained or a related field;

2. enter post-secondary educational programs in the same or related field.

In addition, it may be assumed that some portion of the former students now serving in the military forces would otherwise be employed in the same or a related field or would be pursuing studies in the same or a related field. To account for these people, one quarter of the total number of former students in the military are added to the number defined as successful. The "one quarter" was arbitrarily selected, and has not been validated.

Data on the dollars invested in vocational programs are accumulated from reports filed by the school districts with the Division of Vocational Education.

Due to the difficulty in accurately amortizing costs of facilities and equipment used in the vocational programs, these costs were eliminated from consideration. Salaries of vocational personnel, plus their incidental expenses such as travel, supplies, etc., were used as the sole basis of dollar costs. These costs included federal, state, and local monies, and basically represent "O and M" costs.

A method of handling capital expenditures as well as administrative costs should be developed so that the cost effectiveness figures will better reflect the different inputs of schools and districts. In addition, at present, cost figures are submitted from local school districts and post-secondary schools only; individual high schools do not send cost data to the state Vocational Education Division. Submission of this information from the high schools should be initiated.

III. RESULTS

A. Return of Student Exit Forms

Student Exit Forms were received through July 1968 for the first year's records. A total of 22,871 separate documents were processed, which constituted 19,611 separate records. The difference between these figures, 3,260, is attributable to students who had more than one course in a particular vocational field and, therefore, constituted only one record in that field. An unduplicated count of students, counting each student only once regardless of how many vocational classes he took and whether or not they were in one or more vocational fields, revealed that 18,850 individuals were enrolled in vocational-technical classes in Utah

during 1967-68 school year. This includes both high school and post-high school students

In advance of the receipt of all Exit Forms it had been expected that the total number of forms processed would, in fact, be only a portion of the total number which should have been tabulated. This is attributable to such factors as entire classes or schools failing to submit Exit Forms; students absent on the day of Exit Form completion; unusable forms due to lack of Social Security numbers, or other vital information; and similar circumstances. To handle this possibility and to provide a way of correcting for it, a check count procedure was developed. Enrollment figures were obtained from 15 schools for all vocational classes for which Exit Forms should have been submitted. When the count of students was available from the Exit Form tape, the total obtained from the check count was compared with the recorded total from the same schools. An adjustment factor was then calculated to correct for the difference between the two figures. See Appendix H for the data. All reports based on the Follow-up data were corrected using this factor, except where noted otherwise.

Returns of Student Exit Forms were particularly poor for schools at the post-secondary level. This is attributable to the fact that staff efforts were unintentionally concentrated on the high schools, and to the misunderstanding of definitions and procedures among the post-secondary personnel. This misunderstanding resulted from the fact that differences between high school and post-secondary programs were not adequately accounted for in the instructions furnished to the schools. Because of this poor return, the check count procedure described above was not used, as it was felt that Exit Forms submissions bore little resemblance to actual enrollments and completions.

Incomplete Forms: Social Security Numbers

Considerable numbers of Exit Forms were submitted with some information lacking, which necessitated returning forms to the schools to be completed. This problem was particularly acute in the case of Social Security numbers. During the first year of the program extensive efforts were necessary to gather social security numbers, including repeated contacts with school personnel, letters sent directly to students, telephone communications, etc. Because of the time and money required for this operation, it was decided that in future years students for whom numbers could not be obtained after reasonable efforts would receive a computer-assigned identification number derived by an algorithm from such basic data as last name, birth date, etc.

B. Return of Mailout Questionnaires

8,824 questionnaires were sent to former students in September 1968 and of these, 5,625 questionnaires, or 64%, were returned. A record was

maintained of the rate of return of the forms, and this was examined to determine if the reminder notice and second questionnaire mailout were effective in increasing returns. In both cases a noticeable increase occurred in the return of questionnaires for several days after the mailing. As might be expected, this was more pronounced in the case of the second questionnaire than of the reminder notice, but in view of the fact that the former was also more expensive, the procedure followed is considered satisfactory. The same procedure was used in following up non-vocational students in four high schools. A return of 380 of the 495 questionnaires sent was obtained or 77%. A question arose concerning the possible bias in the data introduced by non-response of 36% of the survey group (3,199 persons). In the first year of the Follow-up a sample of the non-responders was surveyed by telephone in order to establish whether the response pattern of this group corresponded to that of the respondents. No major discrepancy was uncovered. Further investigation should be done of this problem and alternate ways of handling non-response error should be considered.

C. Federal Follow-up Report

Secondary School Level

Data for the Federal Follow-up report (Form OE-4045) was accumulated from the Student Exit Forms and the Mailout Questionnaires. Considerable change was made in the data supplied by the computer before it was officially submitted to the U.S. Office of Education. These changes can be described as follows:

1. The non-responders were distributed proportionally among the various categories to reflect the distribution presented by the responders. It was considered legitimate to assume that the non-responders actually resembled the response group in view of the telephone survey of those from whom a reply questionnaire was not received (see above).

2. Differences existed between the total number of completions reported to the Vocational Education Division in the Spring of 1968 and submitted to USOE on form OE-4048, and the number computed on the basis of the Exit Form submissions, even when those figures were adjusted using the adjustment factor previously described (see p. 10). The final copy of the Follow-up report was made to conform to the totals indicated on Form OE-4048; it is hoped that with some further experience the Follow-up procedure will supply data of sufficient validity and reliability that such changes will not be necessary.

Post-Secondary Level

Because of the very incomplete data supplied by the post-secondary schools, the 1968 Report was based entirely upon data supplied by the Division of Vocational Education.

D. Local Reports

Follow-up reports were computed for each high school, district and post-secondary school in the state. Information concerning the former vocational students from each school and district was supplied which indicated how many were working and at what types of jobs; how many were attending school and in what kind of programs; the number in the Armed Forces; average salaries of those employed; and the responders' opinions of the value of their training. The format and explanations for this report are shown in Appendix F.

The following problems and information arose when the Local Reports were first issued in 1969:

1. The adjustment factor described on p. 10 was applied to all questions on this report except #14 and #15, both of which dealt with dropouts, #19, average salary, and #20, % of response.

#14 and #15 were not adjusted because there had not been a special check count to establish a factor to use with dropouts. Such information will be gathered and a factor established to use in future reports.

2. The data on average salary was not very accurate on the report issued during the first year of Follow-up because information supplied on the Mailout questionnaires was inconsistent. The question regarding salary requested monthly salary but replies included hourly and weekly as well as monthly figures. This question will be revised to provide salary range brackets and ask responders to check the appropriate response.

3. The format for the local report did not include a separate count of those who did not respond to the mailout questionnaire, nor were they included as "status unknown"; they were however included in the total number completing program requirements. Consequently, the totals of former students attending school, employed or looking for work, in the armed forces, not in the labor force for other reasons, and status unknown did not equal the total number completing program requirements. A separate counter of non-responders will be added to future reports to overcome this problem.

4. % of response - This item was incorrectly defined on the original computer program. It was figured as follows:

$$\frac{\#\text{ of responders/discipline (unadjusted)}}{\#\text{ of completions in all disciplines/school (unadjusted)}}$$

The correct equation is:

$$\frac{\#\text{ of responders/discipline (unadjusted)}}{\#\text{ of completions/discipline (adjusted)}}$$

5. Cost Effectiveness: A crude measure of the cost effectiveness of the various state-wide programs in each vocational area was computed by dividing the total amount of O & M dollars spent in the programs in FY 1968 in that field by the number of "successful" students. A successful student was defined to be one who completed a vocational program and graduated from high school in June 1968, obtained employment in the same or related occupation, or attended post-secondary schooling in a related area, plus 25% of those who completed the program and entered the military service. The costs per successful student thus computed are listed below:

Agriculture	- $2,961
Distributive	- $1,592
Health	- $ 230
Home Economics (Gainful)	- $3,188
Business	- $ 978
Trade and Industrial	- $1,599

It should be pointed out that the number of students involved in health and home economics (gainful) are relatively small and the indices derived are of doubtful validity since a variation of only a few students made a large variation in the computed monetary value. It should also be noted that the money spent in each field was distributed in some manner among grades ten through twelve whereas the successful students were only those completing twelth grade. Therefore it could be argued that the figures above if divided by three would give more logical results. However, whether or not divided, the numbers above provide a good basis for comparing the costs to provide vocational education to a "successful" student. Only special vocational O & M expenditures were considered so that facility and equipment costs and regular DU costs would have to be added to derive a total figure.

E. Problems Encountered with Definitions

Each step of the Follow-up project involved problems of defining terms operationally so that they would be understood by those supplying the information, translatable into data processing procedures, and/or consistent with officially designated standards, both state and national. Such definitions generally were established after consultation with the specialists and administrators in the Division of Vocational Education.

A partial listing of some of the terms which constituted definitional problems is provided in Appendix J, for reference by persons who might be in a position to need such definitions.

IV. RECOMMENDATIONS

1. Project Follow-up should be continued.

2. The collection of follow-up information on vocational students should become a routine phase of data accumulation through the Division of Auxiliary Services with aid supplied by the Research Coordinating Unit when needed.

3. A sample of the previous non-respondees to the mailout questionnaire should be surveyed to establish whether their response pattern is similar to those who did respond.

4. The information being gathered by the Follow-up forms (Exit Form and mailout questionnaire) should be reviewed periodically by the RCU and the Vocational Education Division to determine if additions or changes are required.

5. Continuing efforts should be made to refine the cost-effectiveness analysis. These efforts should include acquisition of cost data from individual high schools, and development of procedures for handling capital expenditures and administrative costs.

6. Further consideration should be given to surveying each year's graduates at the end of a ten-year period in order to overcome possible delimitation discussed on page 2, section C, #2.

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Superintendent

APPENDIX A

The State of Utah recognizes the importance of modern and flexible vocational and technical programs in the public and private schools of the state. In fact, there are numerous examples of innovation in our school programs which attempt to provide more realistic vocational learning experiences for our students. However, a thorough study of the true effectiveness of these training courses has never been made on a state-wide basis and has seldom been made on a district basis.

Beginning in 1966, the State of Washington began a program which would effectively follow students who have had vocational preparatory training. The Research Coordinating Unit of the Utah State Board of Education is adapting and modifying Washington's follow-up system to fit the needs of Utah. The purpose of this experiment is to follow vocational students for five years after high school graduation and to provide each district and/or school with data which can be used to evaluate, improve and change its vocational and technical programs. At the same time the state will have more consistent data to measure the progress of the state as a whole, as well as providing information for federal reports. Electronic data processing techniques, together with direct communications between "Computer Central" and former students, will be used in the program. The social security number of each vocational student will be the chief means by which the computer will be able to identify and trace former students despite changes of names, etc.

The follow-up technique to be used involves several basic steps:

1. Having each student who reaches the 10th grade secure a social security number no later than the fall semester.

2. Having each 10th, 11th, and 12th grade student who is enrolled in a vocational class, assisted by his teacher, complete an exit interview form which is forwarded to:

"Follow-up"
1400 University Club Building
Salt Lake City, Utah 84111

For students enrolled in vocational and technical courses, these exit interview forms must be completed and forwarded immediately prior to the student's departure from the course -- regardless of the reason for leaving (successfully completing, moving, dropping out, marriage, etc.). A tentative copy of the exit interview is enclosed. This form should be completed for each vocational and technical course taken by the student.

WALTER D. TALBOT, Deputy Superintendent for Administration • LERUE WINGET, Deputy Superintendent for Instruction • JAY J. CAMPBELL, Deputy Superintendent for Institutions

3. Communicating with every former vocational student each year in October for the five years following departure from high school. A copy of the tentative mail-out student questionnaire which will be sent from "Computer Central," is enclosed.

4. Forwarding printed lists of the findings of the exit interview forms and questionnaires to the district and/or school involved.

We earnestly solicit your cooperation in this project. Before embarking on this program, we are asking for a commitment of approval from your office in the form of a letter of acknowledgement. Any comments, suggestions, or criticisms will be appreciated. We will keep you informed of the progress of this program. We will be most happy to answer any questions you may have concerning this follow-up program. Such inquiries can be made to me, or to Mr. John F. Stephens, Director, Research Coordinating Unit, 1300 University Club Building, Salt Lake City, Utah.

We are attempting to develop the Exit Interview Form as uncomplicated as possible. It is not our intention to burden the teachers and administration with a copious amount of paper work,

In the near future quantities of the exit interview forms will be distributed to all Utah high schools. We will contact the individual high school principals and vocational teachers to instruct them in the procedures which they are to follow. Also, a "code book" will be provided to each vocational teacher for use in completing the parts of the exit interview form which require a school number or course number.

Thank you for your cooperation. We are looking forward to your comments and suggestions.

Sincerely,

John A. Cox, Research Assistant

Enclosures: Exit Interview Form
Student Mail-out Questionnaire

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Superintendent

APPENDIX B

The State of Utah recognizes the importance of modern and flexible vocational and technical programs in the public and private schools in the state. In fact, there are numerous examples of innovation in our school programs which attempt to provide more realistic vocational learning experiences for our students. However, a thorough study of the true effectiveness of these training courses has never been made on a state-wide basis and has seldom been made on a post-secondary vocational-technical basis.

Beginning in 1966, the State of Washington began a program which would effectively follow students who have had vocational preparatory training. The Research Coordinating Unit of the Utah State Board of Education is adapting and modifying Washington's follow-up system to fit the needs of Utah. The purpose of this experiment is to follow vocational students for five years after high school graduation and to provide each district and/or school with data which can be used to evaluate, improve, and change its vocational and technical programs.

The procured data will provide the state with more consistent data to measure the progress of the state as a whole, as well as providing information for federal reports. Electronic data processing techniques, together with direct communications between "Computer Central" and former students, will be used in the program. The social security number of each vocational student will be the chief means by which the computer will be able to identify and trace former students despite changes of names, etc.

The program has two phases. First, the student is asked to fill out an exit interview form (with the instructor's help, if necessary) shortly before the student leaves a course. The form is to be completed regardless of the student's reason for leaving the course. These completed forms are to be sent to:

"Follow-up"
1400 University Club Building
136 East South Temple
Salt Lake City, Utah 84111

A tentative copy of the Exit Interview Form is enclosed.

The second phase consists of a student questionnaire which will be sent to the former student for five consecutive years. The data from these questionnaires will be analyzed and the information will be returned to the instructors in the form of an Instructor's Record. The results of the exit interview forms and the student questionnaires

WALTER D. TALBOT, Deputy Superintendent for Administration • **LERUE WINGET**, Deputy Superintendent for Instruction • **JAY J. CAMPBELL**, Deputy Superintendent for Institutions

will be made available to the school involved. The tentative Student Mail-out Questionnaire is enclosed.

We are attempting to make the Exit Interview Form as uncomplicated as possible. It is not our intention to burden the vocational teachers and administration with a copious amount of paper work.

We earnestly solicit your cooperation in this project. Before embarking on this program, we are asking for a commitment of approval from your office in the form of a letter of acknowledgement. We are in no way asking for monetary assistance. We will be most happy to answer any questions you may have concerning this follow-up program. Mr. John F. Stephens, Director, Research Coordinating Unit or John A. Cox, Research Assistant, will be available, at your request, to brief the vocational-technical faculty about this program. Any comments, suggestions, or criticisms will be appreciated.

In the near future quantities of exit interview forms will be distributed to all Utah high schools and post-secondary vocational schools. We will contact the department heads and vocational teachers to instruct them in the procedures which they are to follow. Also, a "code book" will be provided to each vocational teacher for use in completing the parts of the exit interview form which require a school number or course number.

Thank you for your cooperation. We are looking forward to your comments and suggestions.

Sincerely yours,

John A. Cox
Research Assistant
Utah Research Coordinating Unit

JAC:mh
Enclosures 2

UTAH STATE BOARD OF EDUCATION

1400 UNIVERSITY CLUB BUILDING • 136 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

Office of the
STATE SUPERINTENDENT
OF PUBLIC INSTRUCTION

T. H. BELL
Superintendent

APPENDIX C

A state-wide experimental program will begin in January in the school districts of Utah. The program will attempt to follow the graduates and drop-outs from the secondary schools for five consecutive years after they leave school. The object is to measure the progress of these students by examination of their post-secondary employment accomplishments. It will also solicit and categorize their suggestions as to the benefits and shortcomings of the educational programs in which they participated while in high school.

In the beginning, only the students in the vocational classes will be involved; then, after a year or two of working the "bugs" out, if the program proves to be satisfactory and useful, the program will be expanded to include all students in our high schools.

Basically the program has two phases, each of equal importance. First, each student in a vocational class will be asked to complete (with the instructor's help, if necessary) an exit interview form shortly before he leaves the course. This exit interview form must be completed regardless of the student's reason for leaving (e.g. marriage, dropping out, illness, etc.). Once these forms are completed, they will be forwarded by the secondary schools to:

"Follow-up"
1400 University Club Building
136 East South Temple
Salt Lake City, Utah 84111

A tentative copy of the Exit Interview Form is enclosed as Enclosure 1.

Once the Exit Interview Forms are received in Salt Lake City, the data will be processed by computer and entered on tape. An Instructor's Record will be printed out and returned in multiple copies to the participating school. The instructor will then have in his possession a record of his former vocational students. A tentative copy of the format of the Instructor's Record is enclosed as Enclosure 2.

This essentially completes the first phase of the program. This process will be repeated several times a year as students leave the vocational courses in your school.

The second phase of the program consists of a follow-up questionnaire which is sent from "Computer Central" to the former vocational students early in October of each year. In December, after the completed questionnaires are returned to Salt Lake City, the computer will analyze the information from the questionnaires in conformance to a specified

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computer program. An Instructor's Record plus an analysis of the data obtained will be mailed to each participating school. A tentative copy of the student mail-out questionnaire is enclosed as Enclosure 3.

We need your cooperation in this program not only for the consolidated state-wide data that will become available, but also because it will provide the individual schools with much of the data they will need for more sophisticated analyses of their own efforts in vocational education than is now available to them. These data will also serve as the basis for the Federal Report due in Washington D. C. each December.

We will forward Exit Interview Forms (plus all necessary instructions) for your use beginning January 2nd. Prior to that date, we suggest you take two preparatory steps:

First: Ask each of your students enrolled in a vocational class, grades 10-12, to secure a social security number as soon as possible. This should be no particular hardship on the students since, as you know, they must have a social security number to get a driver's license, to start a bank account, and for many other purposes. But it is an important step because the computer will identify students and former students by their social security numbers to avoid difficulties caused by name changes, use of nicknames, etc.

Second: At a faculty meeting or by other means of communication, explain the program to the vocational instructors and emphasize to them the importance of properly completed exit interview forms for each student leaving a class. The teachers, in turn, should be encouraged to emphasize to the students, soon after a course begins, the requirement for exit interviews and the reason for the follow-up, which is not an invasion of privacy, but an attempt to provide a better educational experience for their successors.

This program has the wholehearted support of the State Superintendent of Public Instruction and also of your District Superintendent. With your help, the program should succeed.

Thank you for your cooperation.

JOHN F. STEPHENS, DIRECTOR
UTAH RESEARCH COORDINATING UNIT

By_____
John A. Cox, Research Assistant

JFS:JAC:mh

Enclosures 3

REFER TO "FOLLOW-UP" CODE BOOK FOR INSTRUCTIONS FOR COMPLETING THIS FORM

PLEASE ANSWER ALL QUESTIONS

Please print or write legibly

All information is confidential

Form Number RCU - 3

STUDENT EXIT FORM

Mail to: "Follow-Up"
1400 University Club Building
Salt Lake City, Utah 84111

The data on this form will be used in vocational follow-up studies

Estimated Year of Graduation
19_____

1. Student Name: Last First Middle	2. Social Security Number	*3. District Code	*4. School Code	5. Tel. No. of Student
6. Street Address	7. Birth Date: Month Day Year	8. Male ☐ Female ☐	*9. Course Code	*10. Course Name
11. City and State Zip:	12. At time of exit from course, will student have completed the course? ☐ yes ☐ no (Pass or Fail is not the criteria)		13. Exit Date: (Date student leaves or completes course) Month Day Year	
14. Teacher's Name _____ Teacher's Social Security Number _____	*15. At exit, was the student in a cooperative work-study program? (Teacher check appropriate box) ☐ yes ☐ no			
17. At what other address can we contact you? In care of: Name	18. (Check one box) STATUS OF STUDENT AS OF EXIT DATE 1. Graduating from High School ☐ 2. Graduating from Post-Sec. School ☐ 3. Dropping out of school ☐ 4. Changing Schools, (moving transfer, etc.) ☐ 5. Remaining in same School ☐			
19. Address:				
20. City and State: Zip:				

INSTRUCTIONS

1. Use this form whenever a student, for any reason, leaves the class - e.g. dropping out, marriage completion of the course, graduation, moving, etc.
2. Refer to "Follow-Up Code Book" for correct District, School and Course Codes. Double check that correct code is used.
3. Please send to "Follow-Up" immediately after completing this form.
4. Incomplete or improperly completed forms will be returned to the instructor for completion.
5. By those numbers marked with an asterisk (*), the instructor is asked to supply the students with the information.

APPENDIX E

DEAR FORMER STUDENT

This is your follow-up questionnaire. Please respond and mail within ten days.

PLEASE ANSWER ALL ENCLOSED CARDS

CIRCLE OR CHECK CORRECT ANSWER

DISTR.

SCHOOL

COURSE NAME

IDENTIFICATION NUMBER

1. Are you still in High School yes no

2. Did you graduate from H.S. yes no

3. Did you leave H.S. before graduating yes no

4. Are you on active duty in the military forces yes no

5. Are you enrolled in post-secondary school

full time ☐
part time ☐
not at all ☐

a. _____ NAME OF SCHOOL

b. _____ LOCATION

c. Level of program:

Non-Baccalaureate ☐
Baccalaureate ☐
Graduate School ☐

d. Type of post-sec. course:

Same or related field as the voc. course indicated on the left

yes no

6. Did you seek employment in the occupation for which you trained in the above course

yes no

7. What is your present job title

_____

8. What is the name of the company for which you work

_____

9. Present name and home address (if different from name and address on the left):

_____ NAME

_____ ADDRESS

_____ CITY, STATE

ZIP: _____

66-EM M977-0

APPENDIX F

All except #15, 16, 20, 21 adjusted by correction factor.

Those attending school (Post-Sec.) full-time are eliminated from questions #7, 8, 9, 10, and 14.

As on Federal Report; according to criteria set up by specialists	1. Total number that completed program requirement
Are not in military; in school full-time; employed; and did not answer "no" on Available for Work. No. who responded but did not give sufficient information	2. Number status unknown - Incomplete Data
#4 on reply card - "Yes	3. Number on active duty in Armed Forces
#5 Full time (reply card)	4. Number continued full-time school
"No." on available for work (10) from reply card and not in military, in school, or working full or part-time	5. Number not in labor forces for other reasons
"Yes" on #10 A + B + D on reply card excluding those attending school full-time	6. Number employed and/or available
#10 A Full-time on reply card excluding those attending school full-time	7. Number employed full-time in occupation for which trained
#10 B Full-time on reply card excluding those attending school full-time	8. Number employed full-time in related occupation
#10 C Full-time on reply card excluding those attending school full time	9. Number employed full-time in unrelated occupation
#10 A Part-time on reply card	10. Number employed part-time in occupation for which trained
#10 B Part-time on reply card	11. Number employed part-time in related occupation
#10 C Part-time on reply card	12. Number employed part-time in unrelated occupation
#10 D "Yes" on reply card excluding those attending school full-time	13. Number unemployed and available for work

#15 on Federal Report	14. Number who left school before graduation who have marketable skills
# 3 on "Status" from Exit Form (Dropping out)	15. Total number who left school before graduating
#11 A "Yes" on reply card	16. Number hired because of training
#11 B "Yes" on reply card	17. Number whose vocational training contributed to success on the job
# 6 "Yes" on reply card	18. Number who sought employment in occupation for which trained
#14 on reply card (averaged)	19. Mean salary
# of responders/discipline # of completions in all disciplines	20. % response
5A - Full-time; 5D - Yes; 5C - Non-Baccalaureate	21. Number in full-time, post-sec. school in related non-baccalaureate program
5A - Full-time; 5D - No: 5C - Non-Baccalaureate	22. Number in full-time, post-sec. school in unrelated non-baccalaureate program
5A - Full-time; 5D - Yes; 5C - Baccalaureate	23. Number in full-time, post-sec. school in related baccalaureate program
5A - Full-time; 5D - No; 5C - Baccalaureate	24. Number in full-time, post-sec. school in unrelated baccalaureate program
5A - Part-time; 5D - Yes; 5C - Non-Baccalaureate	25. Number in part-time, post-sec. school in related non-baccalaureate program
5A - Part-time; 5D - Yes; 5C - Baccalaureate	26. Number in part-time, post-sec. school in related baccalaureate program
5A - Part-time; 5D - No; 5C - Baccalaureate	27. Number in part-time, post-sec. school in unrelated baccalaureate program
Exit Forms	28. Number 10th, 11th and 12th grade students in cooperative programs
Enrolled - whether or not they completed (Duplicated count)	29. Total number enrolled in course
No. 29, 30, and 31 came from current year tape - not graduate tape	30. Unduplicated count - Vocational students

APPENDIX C

FOLLOW-UP QUESTIONNAIRE

Circle or check correct answer

1. Are you still attending high school full-time? yes no
2. Did you graduate from high school? yes no
3. Are you on active duty in the military forces? yes no
4. Are you presently employed? yes no (if no, go on to #5)

a. If yes, are you employed:
full-time _____
part-time _____

b. What is your present job title:
_____

c. What is the name of the company for which you work? _____

d. What is your hourly wage? (check appropriate range)

1.	Under $1.00 ____	4.	$2.00-$2.50 ____
2.	$1.00-$1.50 ____	5.	$2.50-$3.00 ____
3.	$1.50-$2.00 ____	6.	over $3.00 ____

e. Would you like to work in your present occupational field for the next 5 years?

1.	definitely ____	4.	probably not ____
2.	probably ____	5.	definitely not ____
3.	uncertain ____	6.	other ____ Explain _____

_____

5. a. If you are <u>not employed</u>, are you presently seeking work? yes _____ no ____

b. If you are <u>not seeking work</u>, check the appropriate reason:

1.	_____ illness	4.	_____ LDS Mission
2.	_____ housewife	5.	_____ Other: _____
3.	_____ in the Peace Corps, VISTA, etc.		

_____

6. Please check the name of any school or shcools in which you have been enrolled as a full-time student since you left high school.

_____	1. none	_____	12. Provo Trade Tech College
_____	2. University of Utah	_____	13. Utah Technical College, Salt Lake
_____	3. Brigham Young University	_____	14. another junior college, name: _____
_____	4. Utah State University	_____	15. another four-year college, name: _____
_____	5. College of Eastern Utah	_____	16. another business or secretarial college: Name: _____
_____	6. Dixie College	_____	17. another technical or trade school, name _____
_____	7. Snow College	_____	18. Other; name: _____
_____	8. Weber State College		
_____	9. Westminster College		
_____	10. Stevens-Henager College		
_____	11. LDS Business College		

7. Are you currently attending one of the schools checked in question #6?

_____ Yes, I am currently attending school (go on to question #8)
_____ No, I am not currently attending school (go on to question #11)

8. Please check the name of the school which are are currently attending. (check one only)

____ 1. none
____ 2. University of Utah
____ 3. Brigham Young University
____ 4. Utah State University
____ 5. College of Eastern Utah
____ 6. Dixie College
____ 7. Snow College
____ 8. Weber State College
____ 9. Westminster College
____ 10. Stevens-Henager College
____ 11. LDS Business College
____ 12. Provo Trade Tech College
____ 13. Utah Technical College, SLS
____ 14. another junior college, name: _____
____ 15. another four-year college, name: _____
____ 16. another business or secretarial college, name: _____
____ 17. another technical or trade school, name: _____
____ 18. Other, Name: _____

9. What is your major or filed of specilization? _____

10. Please check the type of program in which you are enrolled. Check one answer only.

1. ____ four-year college program

Other than four-year program:

2. ____ general education
3. ____ vocational or technical education
4. ____ other (please specify) _____

11. If the answer to question #7 is no, why did you leave school? (Check the one most appropriate reason)

1. _____ graduated
2. _____ completed the course
3. _____ had a job offer
4. _____ to get married
5. _____ to look for a job
6. _____ not interested in the course
7. _____ to change schools (please specify which school you entered): _____
_____
8. _____ academic difficulty
9. _____ other, (please specify) _____

12. Present name and home address, if different from the one at the top of questionnaire:

Name: _____

Address: _____

City, State, Zip: _____

APPENDIX II

School	Data From 15-School Check Count Used to Establish Adjustment Factor Vocational Enrollment Reported in Spring '68	Vocational Enrollment As Derived from Exit Forms
Bingham	456	372
Bonneville	447	307
Bountiful	690	389
Dugway	82	5
East	788	529
Grantsville	165	---
Lehi	238	166
Park City	88	23
Provo	843	655
South	910	171
South Summit	129	75
Tintic	48	48
Wasatch	282	219
Weber	635	595
Wendover	15	9
	5816	3563

$\frac{3563}{5816} = .612$

A ".6" correction factor was used.

APPENDIX I

Utah State Board of Education

"Follow-up"

Criteria for Secondary-Level Program Completion

1. Distributive Occupations (Marketing)

Student has completed one of the following in the 10th, 11th, or 12th grades:

(1) A class in Salesmanship and Advertising which is a two-hour or longer block; or

(2) A Cooperative Marketing course.

2. Vocational Services

Student has completed a class in the 10th, 11th, or 12th grade in one of the following:

(1) A "Vocational Services" class; or

(2) In the 11th or 12th grades has completed a two hour Vocational Service course.

3. Health Occupations

Student has completed in the 12th grade the course entitled: "Overview of Health Occupations".

4. Office Occupations

Student has completed any one or a combination of the following during the 10th, 11th, or 12th grades:

(1) Typing - 3 or more semesters = 2 courses

(2) Bookkeeping - 3 or more semesters = 2 courses

(3) Any business data processing class

(4) Shorthand - 3 or more semesters = 2 courses

(5) Any filing class

(6) Any full-year office practice class

(7) Any full-year business machine class

(8) Any cooperative business class

(9) Any business simulation class

(10) Any two or three hour block office occupation program (the block may be a combination of any of the above classes).

5. Trade and Industrial Education

Student has completed in the 11th or 12th grade one of the following:

(1) Two or three hour block program; or

(2) A cooperative T and I program.

6. Vocational Agriculture

Student has completed two or more years of vocational agriculture classes.

7. Home Economics for Wage Earning (Gainful)

Student has completed in the 12th grade a Home Economics course which meets the following criteria:

(1) Job related (gainful) class;
(2) Cooperative or simulation program;
(3) Two hour or longer block class.

8. Home Economics for Useful

Student has completed in the 10th, 11th, or 12th grade one of the following:

(1) A full year of any useful home economics class; or
(2) A two-hour or longer block of any useful home economics class.

APPENDIX J

Definitional Problems

Status Unknown as used on the Federal Follow-up Report (Form OE 4045) and on local reports:

> Persons who returned a Mailout Questionnaire but who failed to supply enough information to be assigned a status. Operationally this meant that they were not attending school full-time, were not employed full-time or part-time (in either the occupation for which trained, a related occupation, or unrelated occupation), were not in the military services, were not unemployed and seeking work, and had not voluntarily withdrawn from the labor force.

Marketable skills as used in relation to dropouts on the Federal Follow-up Report and on Local Reports:

> Evidence of the student having acquired marketable skills in the occupation for which he was trained was a response on the Mailout Questionnaire that the student was working in the same or a related occupation, full-time or part-time.

Criteria for distinguishing TECHNICAL from TRADE AND INDISTRIAL programs.

NOTE: THERE ARE NO TECHNICAL COURSES TAUGHT IN THE HIGH SCHOOLS!

In TECHNICAL, 25% of the student's time or credit is devoted to science and mathematics courses which are not strictly occupationally-oriented, 25% to general and related subjects, and 50% to theory and laboratory work. TRADE AND INDUSTRIAL courses devote more time to laboratory-shop work, thereby reducing the amount of mathematics, science, general and theoretical subjects. These are the standards adopted by the Vocational Division of the State Board of Education. Please, disregard whatever standards you usually employ in your individual schools in deciding whether to use the TECHNICAL code; 16.000 series, or the TRADE AND INDUSTRIAL codes, 17.000 series.

In addition to the foregoing criteria, the following may be of help to you in distinguishing TECHNICAL from TRADE AND INDUSTRIAL where it is a close question:

TECHNICAL COURSE (16.000 series)	TRADE AND INDUSTRIAL COURSE (17.000 series)
1. Develops theorectical skills, e.g., analysis of processes.	1. Develops more practical skills, e.g., machine operation.
2. May involve preparation of technical reports and graphic analyses.	2. Probably does not require advanced communication skills, yet deals with preparation for advancement to supervisory and foreman levels.
3. Stresses the mathematical and scientific bases of the occupations.	3. Probably is more restricted to applied aspects of mathematics and science.
4. Requires at least a two year training period of nine months per year, but does not include baccalaureate degree programs.	4. May be less than a two year program.

We are certain that the time and effort, not to mention expense, put into this project are worthwhile. Many other states have carried out a project similar to this one and have been highly successful. Thank you for your part in the Utah project. If there are any further questions or problems, let us know about them and we will be happy to help you. Call Mr. Bruce E. Humberstone, Research Assistant, 328-5891.